

AMENDMENTS TO THE CLAIMS

Please amend claims 6 and 8 – 11 as set forth below:

1. (Previously presented) A process for the recovery of acrylonitrile from a reactor effluent stream comprising acrylonitrile, water, and organic impurities, comprising the steps of:
 - quenching an ammoxidation reactor effluent stream that comprises acrylonitrile, water, and organic impurities with an aqueous quench stream, thereby producing a cooled reactor effluent stream;
 - passing the cooled reactor effluent stream through an absorption column, thereby generating an absorber bottoms stream that comprises water, acrylonitrile, and organic impurities; and
 - passing the absorber bottoms stream through a column consisting essentially of a single recovery and stripper column without an enrichment column, to generate an acrylonitrile-rich overhead stream, a lean water side stream, and a recovery and stripper bottoms stream that comprises organic impurities.
2. (Previously presented) The process of claim 1, wherein the acrylonitrile-rich overhead stream is passed through a decanter to separate water from acrylonitrile.
3. (Previously presented) The process of claim 1, wherein the lean water side stream is recycled for use in the absorption column.
4. (Previously presented) The process of claim 1, wherein the ammoxidation reactor effluent stream is produced by catalytic reaction of ammonia and propylene.
5. (Previously presented) The process of claim 1, wherein the absorber bottoms stream further comprises acetonitrile and an acetonitrile side stream is removed from said recovery and stripper column.
6. (Currently amended) The process of claim 5 wherein, said acetonitrile side stream comprises 99.0% by weight of the acetonitrile from said absorber bottoms stream.

7. (Original) The process of claim 5, wherein said acetonitrile side stream comprises 99.5% by weight of the acetonitrile from said absorber bottoms stream.
8. (Currently amended) A system for the recovery of pure acrylonitrile from an ammoxidation reactor effluent stream comprising: (a) an ammoxidation reactor; (b) an absorption column connected to the ammoxidation reactor, and (c) a column consisting essentially of a single recovery and stripper column connected to the absorption column, the system not including an enrichment column attached to the recovery and stripper column.
9. (Currently amended) The system of claim 8, wherein at least ~~about~~ 99.0% by weight of acrylonitrile is recovered from said single recovery and stripper column.
10. (Currently amended) The system of claim 8, wherein at least ~~about~~ 99.5% by weight of acrylonitrile is recovered from said single recovery and stripper column.
11. (Currently amended) The system of claim 8, wherein at least ~~about~~ 99.7% by weight of acrylonitrile is recovered from said single recovery and stripper column.